

AMENDMENTS TO THE CLAIMS

Please cancel claims 1-15 without prejudice to pursue these claims in a future continuation application or an already-filed application, and insert new claims 16-37, as follows:

- 1.-15. Cancelled.
16. (New) An optical instrument lighting system, comprising:
a light source having a first narrow band wavelength and a second narrow band wavelength different from the first narrow band wavelength.
17. (New) The system of claim 16, wherein the light source comprises a red LED.
18. (New) The system of claim 16, wherein the light source comprises a green LED.
19. (New) The system of claim 16, wherein the light source comprises an array of green LEDs.
20. (New) The system of claim 16, wherein the light source comprises an array of red LEDs.
21. (New) The system of claim 16, wherein the light source comprises an array of LEDs, the array including at least one green LED and at least one red LED.

22. (New) The system of claim 16, further comprising a third narrow band wavelength different from the first and second narrow band wavelengths.
23. (New) The system of claim 16, wherein the first wavelength is between about 690 nm and about 750 nm.
24. (New) The system of claim 16, wherein the second wavelength is between about 500 nm and about 600 nm.
25. (New) The system of claim 16, wherein the light source comprises a first array of LEDs having the first narrow band wavelength, and a second array of LEDs having the second narrow band wavelength.
26. (New) The system of claim 25, wherein the a first array of LEDs are formed on a first die, and the second array of LEDs are formed on a second die.
27. (New) The system of claim 26, wherein the first and second dies are attached to a common substrate.
28. (New) The system of claim 25, wherein the first and second LED arrays are formed on a single die.

29. (New) A LED array for use in an optical instrument lighting system for imaging a biological sample, the LED array comprising:
- a first narrow band wavelength LED; and
 - a second narrow band wavelength LED.
30. (New) The LED array of claim 29, comprising multiple green LEDs.
31. (New) The LED array of claim 29, comprising multiple red LEDs.
32. (New) The LED array of claim 29, comprising at least one red LED and at least one red LED.
33. (New) The LED array of claim 29, each LED of the array formed on a respective die, the dies collectively attached to a single substrate.
34. (New) The LED array of claim 33, comprising multiple green LEDs.
35. (New) The LED array of claim 34, comprising multiple red LEDs.
36. (New) The LED array of claim 29, wherein a first plurality of LEDs including the at least one green LED are formed on a first die, and a second plurality of LEDs including the at least one red LED are formed on a second die, the first and second dies being attached to a common substrate.

37. (New) An optical instrument lighting system, comprising:

- a first array of one or more LEDs having a first narrow band wavelength;
- a second array of one or more LEDs having a second narrow band wavelength different from the first narrow band wavelength; and
- a third array of one or more LEDs having a third narrow band wavelength different from the first and second narrow band wavelengths, each of the first, second and third LED arrays being formed on a single substrate.